

INTERNATIONAL SEARCH REPORT

Int al Application No
PCT/IB2004/003323

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F16G13/06 F16G13/18 F16G13/10 B62M9/00 B62M9/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16G B62M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 494 670 A (SHIMANO INC) 15 July 1992 (1992-07-15)	1
Y	figures 1-5 column 3, line 7 - line 53	2-30
Y	US 3 093 235 A (IMSE PHILIP J) 11 June 1963 (1963-06-11) column 1, line 24 - line 28 figure 3	2-18
Y	US 5 322 483 A (WANG ET AL) 21 June 1994 (1994-06-21) figures 3-5 column 1, line 65 - column 2, line 21	19-23
Y	JP 60 093017 A (HITACHI SEISAKUSHO KK) 24 May 1985 (1985-05-24) figures 5,7	24,26
	----- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the International search

2 February 2005

Date of mailing of the International search report

09/02/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

TERRIER DE LA CHAISE

INTERNATIONAL SEARCH REPORT

Int'l Application No
PCT/IB2004/003323

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 1 945 357 A (PIERCE HAROLD S) 30 January 1934 (1934-01-30) figures 8,11,14 -----	24,25,28
Y	US 2 277 915 A (KLAUCKE HERMANN) 31 March 1942 (1942-03-31) figure 3 column 2, line 39 - column 3, line 27 -----	24,25, 27-29
Y	EP 0 666 434 A (SACHS INDUSTRIES S.A.) 9 August 1995 (1995-08-09) figures 3,5,6 column 4, line 3 - line 16 -----	30

INTERNATIONAL SEARCH REPORT

information on patent family members

Int

Int'l Application No

PCT/IB2004/003323

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0494670	A	15-07-1992	JP 2538892 Y2 JP 4093290 U DE 69203246 D1 DE 69203246 T2 EP 0494670 A1 US 5288278 A	18-06-1997 13-08-1992 10-08-1995 23-11-1995 15-07-1992 22-02-1994
US 3093235	A	11-06-1963	DE 1675820 B1 GB 973987 A	11-12-1969 04-11-1964
US 5322483	A	21-06-1994	FR 2714133 A3	23-06-1995
JP 60093017	A	24-05-1985	NONE	
US 1945357	A	30-01-1934	NONE	
US 2277915	A	31-03-1942	NONE	
EP 0666434	A	09-08-1995	FR 2715981 A1 DE 69402174 D1 DE 69402174 T2 EP 0666434 A1	11-08-1995 24-04-1997 30-10-1997 09-08-1995